ERAMS Sample Collection and Counting

1.0 Location

Room 309

2.0 Purpose

This method measures radiation from a filter located on the roof of the building.

3.0 Scope

The Environmental Radiation Alert Monitoring Network was established to alert National, State, and local agencies to significant increases in atmospheric concentrations and depositions of radioactive materials important to population exposure surveillance control.

4.0 Reference

EPA 520/5-84-007,008,009
May 1988

5.0 Sample Handling and Preservation

5.1 Measure the cm of water with a yard stick and record.

5.2 Collect the water sample from the bucket into a cubitainer, completely emptying the bucket.

5.3 Take the end reading of the air filters and record.

5.4 Change the air filters.

5.5 Take the beginning reading of the new air filters.

5.6 Convert the cm of water to liters from the chart.

5.7 Fill out a white label adding the start and stop date and time.

Example:

Station:	606
Date Collected:	6-18-86
Amount collected:	5 liters
Start:	08180900
Stop:	08220900

5.8 Put the label on the top of the cubitainer and place in the inner carton. Place the inner carton into the shipping carton, attach the white mailing label, and mail the same day as the sample was collected.

6.0 Apparatus and Materials

6.1 EPA supplied standard disk

6.2 Forms, glassine envelopes, mailing envelopes, and filters supplied by EPA.

6.3 Radiation Detection Instrument supplied by EPA

7.0 Procedure

7.1 Instrument is always left on.

7.2 With the counting chamber empty, Press count (timer is set for 1 min.). Record the background count .

7.3 Place the filter dirty side up in the counting chamber and press count for 1 min. Record the sample count.

7.4 Place the standard disk in the counting chamber and press count for 1 min. Record the standard count.

7.5 Fill out a white ERAMS air and precipitation report with a #2 lead pencil as shown in the example in the drawer below the instrument.

7.6 Fill out the logbook, converting the end and beginning filter readings to m^3/hr by using the Hi Vol Orifice Calibration Data Chart.

7.7 Mail the filter and the white copy of the ERAMS report in a manila envelope the same day as collected.

8.0 Quality Control

The yellow copy is kept for our records.

9.0 Documentation

The filter readings , date, final result, and rain or snow collected are recorded in the notebook in the drawer under the instrument.

10.0 Records

All records are kept in the drawers under the instrument.